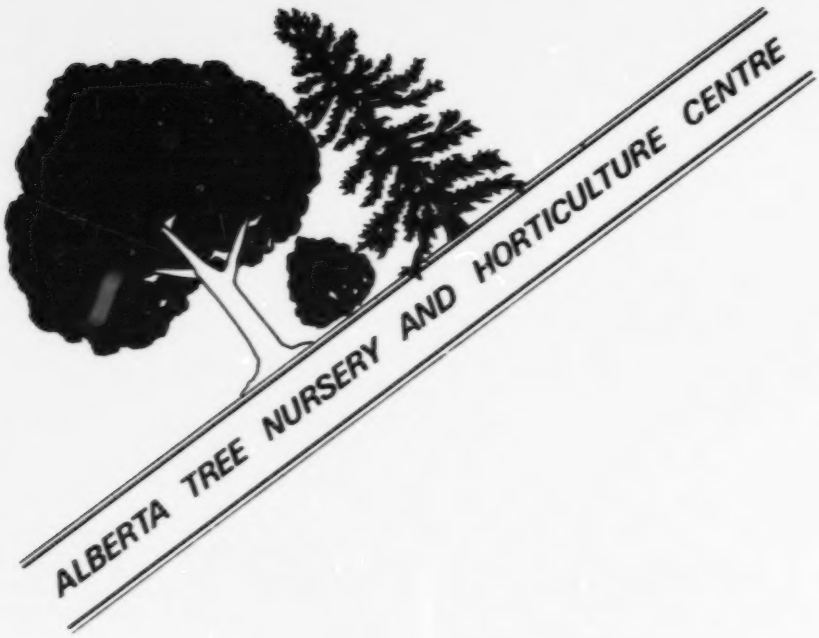

VEGETABLE CULTURAL AND CULTIVAR TRIALS

EDMONTON AND PEACE RIVER

1 9 8 2

Alberta
AGRICULTURE

VEGETABLE CULTURAL AND CULTIVAR TRIALS

EDMONTON AND PEACE RIVER

1 9 8 2

For information concerning these trials, contact:

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(Slicers) continued	A & C Improved	Abbott & Cobb
	Hy Slice	Castle
Lettuce	Ruby	Stokes
	Deep Red	Harris
	Ithica M.I.	Stokes
	Minilake M.I.	Stokes
	Montello M.I.	Stokes
Muskmelon	Northern Queen	Abbott & Cobb
	Alaska	Peto
Watermelon	Yellow Baby	Stokes
	Stokes Sugar Hybrid	Stokes
Pumpkin	Small Sugar	Stokes
	Spirit	Stokes
	Jack Pot	Harris
	Pankow's Field	Harris
Tomato	Peto Early	Peto
	Earlibright	Stokes
	Cold Set	Stokes
	Rocket	Stokes
	Stokes Alaska	Stokes
	Early Bird	Stokes

SEED SOURCES

BOTH SITES

Broccoli	Premium Crop	Stokes
	Green Mountain	Stokes
	Gem	Asgrow
	Southern Comet	Perron
Cabbage	Stonehead	Stokes
	Safekeeper	Stokes
	Golden Acre	Harris
	Princess	Stokes
	Emerald Acre	Stokes
	Blue Heaven	Stokes
	Gladiator	Harris
	Storage Green	Stokes
	Quick Green Storage	Stokes
	Ultra Green	Stokes
	Red Debut	Harris
	Ruby Ball	Harris
	Mammoth Red Rock	Stokes
	Red Danish	Stokes
	Storage Red	Stokes
Chinese Cabbage	Summertime	Stokes
	Springtime	Stokes
	Wintertime	Stokes
Cauliflower	Delira	Stokes
	Extra Early Snowball	Stokes
	Dominant	Stokes
	White Empress	Abbott & Cobb
	Snow Crown	Stokes
	White Countessa	Abbott & Cobb
	Stovepipe	Abbott & Cobb
Corn	Sunburst Improved	Stokes
	Northern Vee	Stokes
	Earligem	Stokes
	Holmes Early Sunrise	Holmes
	Northern Sweet	Stokes
	Northlite	Stokes
Cucumbers (Picklers)	Greenpak	Harris
	Compass	Harris
	Morden Early	Alta. Nurseries
	Pickmore	Harris
	Earlipik	Alta. Nurseries
	Saladin	Stokes
(Slicers)	Victory	Stokes
	Roadside Fancy	Agway
	Slicemaster	Harris
	Dasher	Stokes

1982 VEGETABLE TRIALS - EDMONTON

A number of cultural and cultivar trials were conducted in the Edmonton area at the Alberta Tree Nursery & Horticulture Centre. The soil is of a black medium textured type. The frost free period averages approximately 124 days. Summer climate is usually mild with adequate rainfall, although irrigation is sometimes required. In 1982, the spring and early summer was quite dry, however, with irrigation, crop growth and development was good throughout the season. The first killing frost was earlier than in the previous 9 years.

The purpose of the tests is to evaluate production methods and cultivars for the commercial fresh vegetable industry and market gardeners in the central part of the province. There are also indirect benefits for rural and urban home gardeners.

Trials conducted in 1982 were as follows:

CULTURAL TRIALS

1. Pickling Cucumber Transplant Polyethylene Mulch and Tunnel Trials.
2. Green Pepper Polyethylene Mulch, Tunnel and Hotcap Trial.
3. Summer Squash Polyethylene Mulch and Tunnel Trials.
4. Winter Squash Polyethylene Mulch and Tunnel Trials.
5. Pumpkin Transplant Trial.
6. Broccoli Plant P o pulation Trials.
7. Chinese Cabbage Seeding Date Trials.

CULTIVAR TRIALS

1. Pickling Cucumber
2. Slicing Cucumber
3. Sweet Corn
4. Cauliflower
5. Pumpkin
6. Storage Cabbage
7. Peas

ALBERTA TREE NURSERY & HORTICULTURE CENTRE (A.T.N. & H.C.)

GROWING SEASON DATA 1973-1982

Year	Last Killing Frost Data	Degrees	First Killing Frost Data	Degrees	No. of Frost Free Days
1973	May 1	- 4°C	September 5	- 3°C	126
1974	May 3	- 2°C	September 1	- 2°C	120
1975	Apr. 29	- 3°C	October 5	- 2°C	158
1976	May 6	- 3°C	October 4	- 2°C	150
1977	Apr. 22	- 6°C	October 6	- 2°C	166
1978	May 4	- 2°C	October 5	- 2.5°C	153
1979	May 31	- 2°C	October 8	- 2°C	129
1980	April 9	- 4°C	October 10	- 2.5°C	183
1981	May 5	- 3.5°C	October 3	- 3°C	150
1982	May 9	- 3°C	September 13	- 6.5°C	126
Ten Year Average		- 3.3°C		- 2.8°C	146

The degrees of killing occurs on - 2°C.

PICKLING CUCUMBER TRANSPLANTS VS. DIRECT SEEDING POLYETHYLENE MULCH AND TUNNEL TRIAL - EDMONTON 1982

R. Trimmer, F. Straka

Using the pickling cucumber cultivar "Earlipik" six treatments: bare soil, black mulch and clear mulch, with and without tunnels, were evaluated. The treatments were direct seeded to compare with the transplant treatments. In the clear mulch, bare soil and bare soil with tunnel treatments yields were slightly higher under direct seeding, while black mulch with tunnel showed a more significantly higher yield. In the clear mulch with tunnel and black mulch treatments yields were higher under transplanting. In the transplant trial clear mulch with tunnel had the highest yield while under direct seeding black mulch with tunnel was the best.

TREATMENT	DAYS TO 1ST HARVEST	DECREE [y] DAYS TO 1ST HARVEST	YIELD AT 1ST HARVEST (kg)	GRADED YIELD (KG/M^2) BASED ON FRUIT DIAMETER (cm)					TOTAL MARKETABLE YIELD	
				#1 0-2.5	#2 2.5-3.0	#3 3.0-4.0	#4 4.0-5.0	#5 5.0+	Kg/M^2	T/Ha
TRANSPLANTED:										
Clear Mulch	56	167	1.70	.30	.68	1.31	0.76	.45	3.50	35.0
Black Mulch & Tunnel	56	167	3.90	.41	.63	1.31	0.82	.69	3.86	38.6
Bare Soil	56	167	2.30	.34	.62	1.40	0.84	.54	3.74	37.4
Clear Mulch & Tunnel	56	167	3.20	.36	.61	1.49	1.06	.42	3.94	39.4
Black Mulch	56	167	2.90	.36	.76	1.34	0.77	.42	3.65	36.5
Bare Soil & Tunnel	56	167	1.40	.44	.64	0.89	0.57	.41	2.95	29.5
DIRECT SEEDED:										
Clear Mulch	78	185	2.15	.57	.75	1.31	0.52	.38	3.53	35.3
Black Mulch & Tunnel	78	185	2.20	.56	.69	1.35	0.84	.83	4.27	42.7
Bare Soil	78	185	2.55	.53	.88	1.17	0.78	.46	3.82	38.2
Clear Mulch & Tunnel	78	185	1.95	.37	.52	1.15	0.89	.72	3.65	36.5
Black Mulch	78	185	2.30	.33	.55	1.27	0.73	.42	3.30	33.0
Bare Soil & Tunnel	78	185	2.25	.51	.63	0.97	0.59	.38	3.08	30.8

Plot Design - Single Row Row Spacing - 1.8 m In Row Spacing 15 cm
Field Seeded - May 18 Field Transplanted - June 4

y - Degree Days Calculated on Daily Basis $DD = \frac{\text{Max.} + \text{Min. Temp.}}{2}$ minus base temp of 13°C and totaled over the growing season.

GREEN PEPPER POLYETHYLENE MULCH, TUNNEL AND HOTCAP TRIAL

Edmonton, 1982
R. Trimmer, F. Straka

Six treatments of green pepper, using the cultivar "Early California Wonder", were set out as transplants in a single row trial. Treatments consisted of bare soil, black mulch and clear mulch with comparisons between polyethylene tunnels vs. hotcaps in each case.

No report was made on the tunnel treatments as the plants suffered severe stress soon after planting resulting in inconclusive data.

In the hotcap treatments, black and clear mulch had equally the highest yields.

Treatment	Days to 1st Harvest	Yield (kg)		Marketable Yield	
		Total	Marketable	kg/m^2	T/ha.
Black Mulch & Hotcap	79	13.55	8.6	0.80	8.0
Clear Mulch & Hotcap	79	10.36	8.7	0.80	8.0
Bare Soil & Hotcap	79	5.85	4.5	0.42	4.2
Clear Mulch & Tunnel	--	--	--	--	--
Bare Soil & Tunnel	--	--	--	--	--
Black Mulch & Tunnel	--	--	--	--	--

Plot design - single rows
Row spacing - 1.8 m.
In row spacing - 60 cm.
Row Length - 10 m (6 m harvested)
Field Transplanted - May 31

SUMMER SQUASH POLYETHYLENE MULCH AND TUNNEL TRIAL

Edmonton 1982

R. Trimmer, F. Straka

Zucchini summer squash was direct seeded in 6 treatments: bare soil, clear mulch and black mulch with and without tunnels. The clear mulch with tunnel treatment yielded the best, followed by black mulch with tunnel. The black mulch treatment was a few days later than all the others.

TREATMENT	DAYS TO 1ST HARVEST	YIELD AT 1ST HARVEST (KG)	TOTAL YIELD (KG)	YIELD PER PLANT (KG)	MEAN STEM LENGTH (CM)	MEAN FRUIT LENGTH (CM)	MEAN FRUIT DIAMETER	L/D* RATIO
Clear Mulch & Tunnel	55	2.6	64.5	8.06	3.94	21.6	5.5	3.93
Black Mulch & Tunnel	55	2.6	61.3	6.13	3.90	22.8	6.3	3.62
Black Mulch	58	0.5	48.0	4.80	4.08	23.0	5.2	4.42
Bare Soil	55	2.2	47.8	4.78	3.96	21.6	5.3	4.07
Clear Mulch	55	1.7	45.8	4.58	4.00	19.6	4.1	4.78
Bare Soil & Tunnel	55	1.0	38.7	3.87	3.94	21.7	5.4	4.02

Plot Design - single row

Row Spacing - 1.8 m
In Row Spacing - 60 cm
Row Length - 10 m
Field Seeded - May 20

*L/D Ratio: $\frac{\text{Length of fruit (cm)}}{\text{Diameter of fruit (cm)}}$

Large numbers imply long, narrow fruit. Smaller numbers imply shorter, thicker fruit.

WINTER SQUASH POLYETHYLENE MULCH AND TUNNEL TRIAL

Edmonton 1982

R. Trimmer, F. Straka

The cultivar "Baby Hubbard" was direct seeded in 6 treatments: bare soil, clear mulch and black mulch with and without tunnels. Black mulch with tunnel had the highest yield followed by clear mulch. The bare soil treatment yield was lowest. Black mulch and bare soil with tunnel had the highet fruit weight. Poor germination under the tunnels was experienced. Also considerable fruit rotting occured on all treatments.

TREATMENT	DAYS TO 1ST HARVEST	TOTAL MARKETABLE YIELD		DIAMETER (cm)		MEAN FRUIT WEIGHT(Kg)	FLESH THICKNESS (cm)
		Kg/M^2	T/Ha	POLAR	EQUATORIAL		
Black Mulch & Tunnel	128	4.06	40.6	21.8	17.2	2.81	2.8
Clear Mulch	128	3.83	38.3	21.2	17.4	2.99	3.4
Black Mulch	128	3.66	36.6	22.4	20.2	3.29	3.4
Bare Soil & Tunnel	128	3.62	36.2	21.8	18.6	3.62	2.8
Clear Mulch & Tunnel	128	2.75	27.5	20.2	18.6	2.60	3.2
Bare Soil	128	2.02	20.2	20.0	17.6	2.14	3.2

Plot Design - single row
Row Spacing - 1.8 m
In Row Spacing - 90 cm
Row Length - 10 m (10m harvested)
Field Seeded - May 19
Harvested - Spetember 23

PUMPKIN TRANSPLANT TRIAL - Edmonton 1982

R. Trimmer, F. Straka

The treatments of direct seeding and the use of transplants were compared. The cultivars Small Sugar and Spirit were used for this trial. In the direct seeded treatment Small Sugar yielded better than in the transplant treatment while in the transplant treatment Spirit yielded the best and had the highest yield in the trial. With both cultivars the transplants were earlier. Some rotting of fruit occured in the field.

TREATMENT	CULTIVAR	DAYS TO 1ST HARVEST	WT. OF MARKETABLE MATURE FRUIT (Kg)	TOTAL MARKETABLE YIELD		DIAMETER (cm)		FLESH THICKNESS (cm)	EXTERNAL COLOR	SHAPE
				Kg/M^2	T/Ha	POLAR	EQUA-TORIAL			
DIRECT SEEDED	SMALL SUGAR	123	54.8	5.07	50.7	18.6	21.4	3.7	Medium Orange with Some Green	Flat
	SPIRIT	123	54.0	5.00	50.0	22.2	23.0	6.0	Pale Orange with Some Green	Round
TRANS - PLANTS	SMALL SUGAR	101	39.7	3.67	36.7	16.4	19.2	3.5	Medium Orange with Some Green	Flat
	SPIRIT	101	92.0	8.52	85.2	27.4	29.4	5.6	Pale Orange with Some Green	Round

Plot Design - Single Row
Row Spacing - 1.8 m
In Row Spacing - 100 cm
Row Length - 10 m (6m harvested)
Field Seeded - May 21
Transplanted - June 1

BROCCOLI POPULATION TRIAL

Edmonton 1982

R. Trimmer, F. Straka

The cultivar "Premium Crop" was direct seeded to evaluate different in-row plant spacings. Spacing of 30 cm, 23 cm, 15 cm and 10 cm were compared. The treatment of 30 cm had the highest total yield, head size and head weight. The best lateral production was from the 23 cm treatment.

SPACING BETWEEN PLANTS	DAYS TO 1ST HARVEST	YIELD OF 1ST HARVEST (Kg)	TOTAL YIELD			MEAN PRIMARY HEAD SIZE		LATERAL* PRODUCTION
			Kg	Kg/M^2	T/Ha	DIAMETER (cm)	WEIGHT (Kg)	Kg/M^2
30 cm	84	1.06	1.64	1.21	12.1	11.9	0.19	0.93
23 cm	84	0.90	1.56	1.15	11.5	11.1	0.16	1.10
15 cm	84	0.23	1.32	0.98	09.8	10.1	0.16	1.04
10 cm	84	0.27	1.59	1.18	11.8	09.0	0.13	0.83

Plot Design - Single Row
Row Spacing - 45 cm
Row Length - 5m (3m harvested)
Field Seeded - May 12

* Lateral Production refers to the quantity of axil shoots produced after harvesting the primary head.

CHINESE CABBAGE SEEDING DATE TRIAL

Edmonton 1982

R. Trimmer, F. Straka

Three cultivars (Summertime, Springtime and Wintertime) were each seeded on three different dates (May 27, June 21 and June 30) to study the effect of planting date on the premature bolting characteristic of this crop.

Wintertime bolted excessively in the May 27 and June 21 planting. No plants were marketable. Bolting was not as prevalent in the June 30 planting and most plants were useable. Summertime and Springtime showed very little tendency to bolt in any treatment and most plants were harvested. Summertime yielded the best in all treatments.

SEEDING DATE	CULTIVAR	DAYS TO 1ST HARVEST	TOTAL OF HARVESTS		TOTAL YIELD		AVERAGE HEAD WT (Kg)	AVE. HEAD SIZE (cm)	
			KG.	NO.	KG/M^2	T/Ha		POLAR	EQUATORIAL
May 27	Summertime	78	41.50	12	7.68	76.8	3.46	27.4	21.8
	Springtime	65	30.42	13	5.63	56.3	2.34	27.2	20.4
	Wintertime	--	-----	--	----	----	----	----	----
June 21	Summertime	75	52.42	13	9.71	97.1	4.03	30.2	24.0
	Springtime	82	49.92	12	9.24	92.4	4.16	28.7	22.5
	Wintertime	--	-----	--	----	----	----	----	----
June 30	Summertime	84	40.70	13	7.53	75.3	3.13	29.0	24.4
	Springtime	84	38.20	12	7.07	70.7	3.18	28.6	22.0
	Wintertime	93	34.50	9	6.39	63.9	3.83	n/a	n/a

Plot Design - single row
Row Spacing - 90 cm
In Row Spacing - 45 cm
Row Length - 10 m (6m harvested)
Field Seeded - May 27, June 21 and June 30

ADVANCED PICKLING CUCUMBER CULTIVAR TRIAL - EDMONTON 1982

R. Trimmer, F. Straka

Six pickling cucumber cultivars were evaluated in a replicated trial. Although there were no significant yield differences by data analysis Greenpak had the highest yield followed by Morden Early. The earliest maturing cultivar was Early Morden, however the yield at first harvest was lower than the other cultivars.

CULTIVAR	DAYS TO 1ST HARVEST	DEGREE DAYS TO 1ST HARVEST [y]	YIELD AT 1ST HARVEST Kg	BASED ON FRUIT DIAMETER (cm) GRADED YIELD (Kg/M²) #1 0-2.5	#2 2.5-3.0	#3 3.0-4.0	#4 4.0-5.0	#5 5.0 +	TOTAL MARKETABLE YIELD Kg/M²	T/Ha	L/D RATIO [x]	GENERAL RATINGS 0-9 9 BEST [w]
Greenpak	70	179	2.65ab[z]	4.17a	4.10a	6.85a	3.69a	3.26a	4.08a	40.8	2.77a	8
Modern Early	64	143	0.84b	1.89a	4.40a	7.12a	3.61a	1.42a	3.41a	34.1	2.85a	8
Compass	77	197	6.46a	1.89a	3.55a	6.30a	3.61a	2.75a	3.24a	32.4	2.57a	7.5
Pickmore	70	179	1.59b	2.08a	4.43a	5.30a	3.45a	1.83a	3.15a	31.5	2.89a	7.5
Earlipik	77	197	4.62ab	1.59a	4.18a	4.61a	4.06a	2.16a	3.07a	30.7	2.71a	7.5
Saladin	77	197	3.07ab	1.76a	3.86a	4.95a	2.80a	1.81a	2.81a	28.1	2.71a	7.0

Plot Design - 3 replications
Row Length - 5m (3m harvested)

Row Spacing - 1.8 m
Field Seeded - May 25

In Row Spacing - 15 cm

w - General ratings includes total yield, earliness, flavor, appearance.

x - L/D ratio = $\frac{\text{Length of Fruit (cm)}}{\text{Diameter of fruit (cm)}}$ - larger numbers imply long, narrow fruit. Small numbers imply short thick fruit.

y - Degree Days calculated on a daily basis. DD = $\frac{\text{Max. + Min. Temp}}{2}$ - minus base temp. of 13°C and totalled over the growing season.

z - Means not followed by the same letter are significantly different by Duncans Multiple Range Test, 5% level (compare means within columns).

ADVANCED SLICING CUCUMBER CULTIVAR TRIAL - EDMONTON 1982

R. Trimmer, F. Straka

Six cultivars of slicing cucumbers were evaluated in a replicated trial. Slicemaster has the highest yield followed by Hy Slice. However there were no significant yield differences by data analysis. There was also no significant differences in the proportion of #1 grade fruit between cultivars.

CULTIVAR	DAYS TO 1ST HARVEST	DEGREE DAYS[y] TO 1ST HARVEST	YIELD AT 1ST HARVEST (Kg)	GRADED YIELD (Kg/M^2) #1 15 + cm	#2 10 - 15 cm	#C Culls	TOTAL MARKETABLE YIELD Kg/M^2	T/Ha	L/D RATIO[x]	GENERAL RATINGS[w] (0 - 9) 9 BEST
Slice Master	81	207	4.03a[z]	1.49a	1.35a	.65a	2.85a	28.5	3.98a	8.0
Hy Slice	77	197	1.83b	1.25a	1.45a	.47a	2.71a	27.1	3.93a	7.5
Dasher	81	207	4.50a	1.09a	1.41a	.54a	2.51a	25.1	3.74a	7.5
A & C Improved	77	197	1.96b	1.05a	1.35a	.66a	2.40a	24.0	3.69a	7.5
Roadside Fancy	81	207	3.73a	.99a	1.14a	.48a	2.14a	21.4	4.18a	7.5
Victory	81	207	3.61a	.79a	.91a	.37a	1.70a	17.0	3.67a	7.0

Plot Design - 3 replications
Row Length - 5m (3m harvested)

Row Spacing - 1.8 m
Field Seeded - May 25

In Row Spacing - 15 cm

w - General ratings includes total yield, earliness, flavor, appearance.

x - L/D ratio = $\frac{\text{Length of Fruit (cm)}}{\text{Diameter of Fruit (cm)}}$ - larger numbers imply long, narrow fruit. Small numbers imply short thick fruit.

y - Degree Days calculated on a daily basis. DD = $\frac{\text{Max. + Min. Temp}}{2}$ - minus base temp. of 13°C and totalled over the growing season.

z - Means not followed by the same letter, are significantly different by Duncans Multiple Range Test, 5% level (compare means within columns).

SWEET CORN CULTIVAR TRIAL - EDMONTON 1982

R. Trimmer, F. Straka

Six cultivars of sweet corn were evaluated in a replicated trial. Northern Sweet produced the highest number of ears. Holmes Early Sunrise had the highest yield by weight, although there were no clear differences as shown by data analysis. Earligem had the fewest number of ears and the lowest yield. The earliest maturing cultivar was Northern Vee as shown by the number of days and heat units to first harvest.

CULTIVAR	DAYS TO 1ST HARVEST	HEAT UNITS TO 1ST HARVEST [y]	YIELD AT 1ST HARVEST Kg	# EARS M^2	TOTAL MARKETABLE YIELD		MEAN EAR Ht (cm)	MEAN PLANT Ht (cm)	TIP FILL 0 - 9 9 BEST	NO. KERNEL ROWS	GENERAL RATING [x] 0 - 9 9 BEST
					Kg/M^2	T/Ha					
Northern Vee	99	1650	6.30a [z]	6.35ab	1.61a	16.1	48.8	161.0	7.3	13.2	8.5
Northern Sweet	111	1766	1.32b	7.71a	1.74a	17.4	71.8	195.3	7.7	12.0	7.0
Northlite	111	1766	3.34b	7.16a	1.90a	19.0	69.3	213.0	7.7	13.2	7.0
Sunburst Improved	111	1766	1.97b	6.11ab	1.89a	18.9	75.9	224.7	7.3	12.4	7.0
Holmes Early Sunrise	103	1718	6.94a	7.22a	2.11a	21.1	64.0	198.7	5.7	12.4	7.5
Earligem	104	1726	0.86b	4.32b	1.14a	11.4	68.7	216.0	6.0	13.6	7.0

[x] - General rating includes yield, earliness, flavor, kernel size, texture.

[y] - Corn heat units calculated on a daily basis and totalled over the growing season.

$$CHU = \frac{\text{Max. Temp} \times \text{Min. Temp.}}{2} - \text{minus base temp. of } 10^{\circ}C.$$

[z] - Means not followed by the same letter are significantly different by Duncans Multiple Range Test, 5% level. (Compare means within columns.)

Plot design - 3 replicates
Row Length - 10 m (6 m harvested)
Row Spacing - 90 cm
Field Seeded - May 13
In Row Spacing - 20 cm

CAULIFLOWER CULTIVAR TRIAL

EDMONTON, 1982

R. Trimmer, F. Straka

Seven cultivars of cauliflower were evaluated, both as direct seeded and transplants. In all cultivars, the transplants out yielded the direct seeding treatments. In the direct seeded trial, Delira had the highest yield; followed by Dominant. As transplants, Dominant was the best yielder, followed by Extra Early Snowball. As would be expected, the transplants were earlier than the direct seeded. The cultivars White Countessa and Stovepipe were of very poor quality including premature bolting, loose heads and poor color. Most heads were unmarketable.

Treatment	Cultivar	Days to 1st Harvest	Days to 75% Harvest	Yield Data (kg) No. of Heads	Total Weight	Average Wt./Head	Kg/m^2	T/ha	Ave. Head Size Polar	Equatorial	General Rating[x] (0-9) 9 Best
Direct Seeding	Delira	105	105	10	7.58	0.76	1.40	14.0	10.0	15.8	7.5
	Dominant	113	119	8	5.40	0.67	1.00	10.0	8.6	14.6	7.0
	Extra Early Snowball	90	98	12	5.14	0.43	0.95	9.5	8.4	15.6	7.0
	Snow Crown	86	94	10	5.12	0.51	0.95	9.5	7.0	13.0	7.0
	White Empress	90	98	9	4.04	0.45	0.75	7.5	7.6	14.6	6.5
	White Countessa	--									
	Stovepipe	--									
Transplants	Dominant	60	81	13	9.21	0.71	1.70	17.0	8.6	15.6	8.0
	Extra Early Snowball	52	67	12	8.05	0.67	1.49	14.9	9.8	17.8	8.5
	Delira	67	87	15	7.92	0.53	1.47	14.7	8.4	17.0	7.5
	White Empress	60	67	13	7.87	0.60	1.46	14.6	8.4	16.0	7.5
	Snow Crown	52	71	13	7.28	0.56	1.35	13.5	8.0	14.2	7.5
	White Countessa	--									
	Stovepipe	--									

[x]General rating includes yield, appearance, eveness of maturity, flavour, earliness

Plot design - single row
Row spacing - 90 cm.
In-row spacing - 45 cm.
Row length - 10 m. (6 m. harvested)
Field seeded - May 12
Field transplanted - May 25

PUMPKIN CULTIVAR TRIAL - EDMONTON 1982

R. Trimmer, F. Straka

Four pumpkin cultivars were evaluated. Pankow Field was the highest yielder, followed by Spirit, although by data analysis Pankow Field was only significantly higher than Small Sugar and Jackpot. Spirit was the best for flesh thickness. None were completely orange in color at harvest but all ripened well after several weeks of storage.

CULTIVAR	WT. OF MARKETABLE MATURE FRUIT (Kg)	TOTAL MARKETABLE YIELD		DIAMETER (cm)		FLESH THICKNESS (cm)	EXTERNAL COLOR	SHAPE	GENERAL RATING [x] 0 - 9 9 BEST
		Kg/M^2	T/Ha	POLAR	EQUA-TORIAL				
Pankow Field	121.43a [z]	11.26a	112.6	27.7	26.8	4.17	Medium Orange With Some Green	Round	9
Spirit	63.33ab	7.03ab	70.3	25.5	25.4	4.70	Pale Orange With Some Green	Round	8
Small Sugar	61.06b	6.78b	67.8	19.3	18.3	3.43	Medium Orange With Some Green	Flat	8
Jackpot	53.50b	5.96b	59.6	25.3	26.3	4.03	Pale Orange With Some Green	Round	7

x - General Rating includes yield, earliness, mature color.

z - Means not followed by the same letter are significantly different by Duncans Multiple Range Test; 5% level (Compare means within coloumns)

Plot Design - 3 replicates
Row Length - 5 m (5 m harvested)
Row Spacing - 1.8 m.
Field Seeded - May 21
In Row Spacing - 100 cm
Harvested - September 21

STORAGE CABBAGE CULTIVAR TRIAL

EDMONTON, 1982

R. Trimmer, F. Straka

Four cultivars of storage cabbage were evaluated in a direct seeded trial. Safekeeper was significantly the best in yield. Also Safekeeper had a significantly larger head size and weight. Quick Storage Green had the second highest yield. After harvest, samples were placed in cold storage (approximately 0 to 1° C) to compare shrinkage and grading losses as a keeping quality evaluation.

Cultivar	Days to 1st Harvest	Total Yield		Ave. Wt. of Head	Diameter (cm)	
		kg/m^2	T/ha.	kg.	Polar	Equatorial
Safekeeper	141	9.13 a[z]	91.3	3.80 a	21.9 a	21.5 a
Storage Green	141	5.75 b	57.5	2.73 b	20.0 b	19.1 b
Quick Storage Green	141	7.05 b	70.5	2.93 b	19.3 b	19.1 b
Ultra Green	141	6.43 b	64.3	2.61 b	19.4 b	19.0 b

[z]Means not followed by the same letter are significantly different by Duncans Multiple Range Test, 5% level (compare means within columns).

Plot design - 3 replications
Row spacing - 90 cm.
In-row spacing - 45 cm.
Row length - 10 m. (6 m. harvested)
Field Seeded - May 12

PEA CULTIVAR TRIAL - Edmonton 1982

R. Trimmer, F. Straka

Ten cultivars of peas were seeded for evaluation. Three meters of each cultivar were harvested on different dates at approximately 3 days apart. Harvesting was scheduled so that the first harvest occured when peas were at very early maturity; the second at optimum maturity; and the third at maximum maturity. Only one harvest was taken at each stage. At first harvest Bolero had the highest yield followed by Parlay. At second harvest Bolero yielded the best followed by Banquet. At third harvest Banquet and Puget tied for highest yield followed by Bolero. Novella had the lowest yield at all stages. Four cultivars: Banquet, Kosta, Masket and Novella tied for earliest maturity.

CULTIVAR	DAYS TO 1ST HARVEST	YIELD (Kg)									AV. VINE HEIGHT (cm)	AV. POD LENGTH (cm)
		1ST HARVEST	KG/M^2	T/Ha	2ND HARVEST	KG/M^2	T/Ha	3RD HARVEST	KG/M^2	T/Ha		
BANQUET	66	2.05	0.76	7.6	3.73	1.38	13.8	4.80	1.78	17.8	75	8.5
BOLERO	70	3.23	1.20	12.0	4.30	1.59	15.9	4.72	1.75	17.5	95	7.0
DARK SKIN PERFECTION	73	1.83	0.68	6.8	2.95	1.09	10.9	4.52	1.67	16.7	75	6.5
KOSTA	66	1.70	0.63	6.3	2.82	1.04	10.4	3.75	1.39	13.9	60	8.0
MASKET	66	2.00	0.74	7.4	3.13	1.16	11.6	3.83	1.42	14.2	78	6.5
NOVELLA	66	1.02	0.38	3.8	1.70	0.63	6.3	2.88	1.07	10.7	72	7.5
PARLAY	73	2.25	0.83	8.3	3.40	1.26	12.6	4.10	1.52	15.2	82	6.5
PUGET	73	2.07	0.77	7.7	3.16	1.17	11.7	4.80	1.78	17.8	92	6.5
TEMPTER	70	1.87	0.69	6.9	3.33	1.23	12.3	3.10	1.15	11.5	95	7.0
TRIFECT	73	1.75	0.65	6.5	2.17	0.81	8.1	3.62	1.34	13.4	107	6.5

Plot Design - Single Row
Row Length - 10 m
Row Spacing - 90 cm
Field Seeded - May 12

1982 VEGETABLE TRIALS - PEACE RIVER

A number of cultural and cultivar vegetable trials were conducted in the Peace River area on the farm of and in co-operation with the Peace River Correctional Centre. The site is located in the Peace River Valley, about 15 km. up river from Peace River town. The climatic conditions compare favourably with the location of the major commercial vegetable growers and market gardeners of the area. The frost free period average is approximately 120 days. The soil is a black medium clay, low in organic matter. The valley climate tends to be warm and dry, consequently irrigation is important. This was very evident in 1982.

The purpose of the tests is to evaluate cultivars and production techniques for the commercial market garden and the fresh vegetable industry and, indirectly, home gardeners.

Trials conducted in 1982 were as follows:

CULTURAL TRIALS

1. Pickling Cucumber Polyethylene Mulch and Tunnel Trials.
2. Slicer Cucumber Polyethylene Mulch and Tunnel Trials.
3. Muskmelon Mulch, Tunnel and Hotcap Trial.
4. Watermelon Mulch, Tunnel and Hotcap Trial.

CULTIVAR TRIALS

1. Broccoli
2. Cabbage
3. Cauliflower
4. Pickling Cucumber
5. Slicing Cucumber
6. Lettuce
7. Pumpkin
8. Tomato

PICKLING CUCUMBER MULCH AND TUNNEL TRIAL
PEACE RIVER, 1982

Using the cultivar "Earlipik", a six treatment trial consisting of plastic mulch and tunnel applications was direct seeded. The best yield was obtained from clear mulch with tunnel treatment, followed by clear mulch without tunnel, however, there was no clear yield differences between any of the treatments by data anlysis. The clear mulch treatments with and without tunnels were slightly earlier than the others.

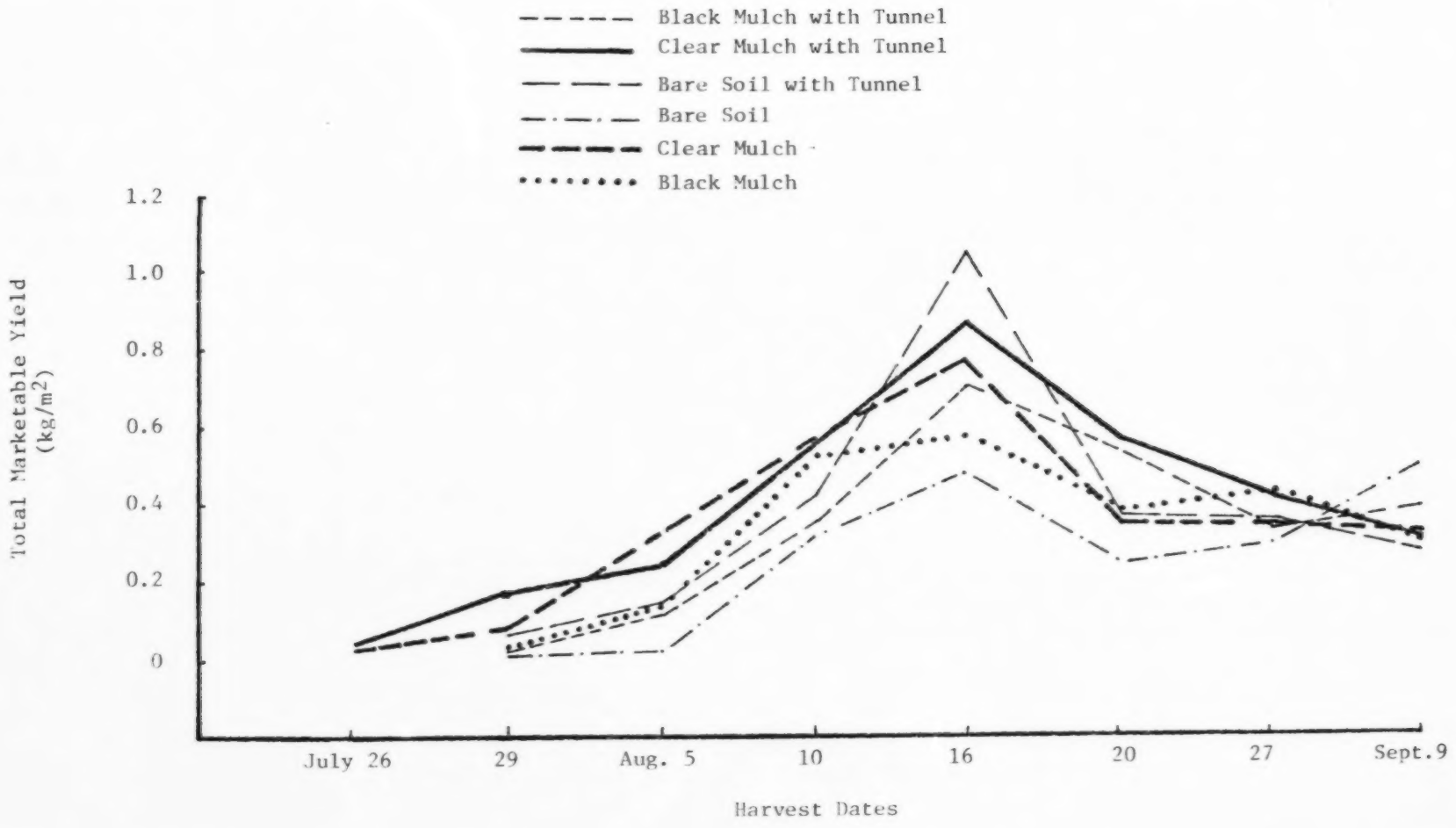
Treatment	Days to 1st Harvest	Yield at 1st Harvest kg.	Graded Yield (kg/m^2) Based on Diameter (cm) #1 0-2.5	#2 2.5-3.0	#3 3.0-4.0	#4 4.0-5.0	#5 5.0+	Total Marketable Yield kg/m^2	T/ha.
Clear Mulch & Tunnel	64	.29 a[z]	.24 a	.74 a	1.71 a	.29 a	.19 a	3.17 a	31.7
Clear Mulch	64	.40 a	.21 a	.62 a	1.43 a	.24 a	.18 a	2.79 a	27.9
Bare Soil & Tunnel	67	.52 a	.15 a	.53 a	1.52 a	.26 a	.10 a	2.58 a	25.8
Black Mulch & Tunnel	65	.11 a	.18 a	.51 a	1.34 a	.25 a	.16 a	2.45 a	24.5
Black Mulch	67	.13 a	.19 a	.48 a	1.22 a	.28 a	.14 a	2.34 a	23.4
Bare Soil	67	.09 a	.11 a	.87 a	1.03 a	.23 a	.15 a	1.90 a	19.0

Plot design - 3 replicates
Row Spacing - 1.8 m.
In-row Spacing - 2plants in 30 cm.
Row Length - 5m. (3 m. harvested)

[z]Means not followed by the same letter are significantly different by Duncans Multiple Range Test, 5% level (compare means within column).

PEAK HARVEST DATES OF PICKLING CUCUMBERS
AS AFFECTED BY MULCHES AND COVERINGS

PEACE RIVER, 1982



SLICING CUCUMBER POLYETHYLENE MULCH AND TUNNEL TRIAL

PEACE RIVER, 1982

R. Trimmer, I. Gravell

The cultivar "Slicemaster" was direct seeded in a trial for the evaluation of six plastic mulch and tunnel treatments. The clear mulch with tunnel and the black mulch with tunnel treatments had significantly higher yields, while bare soil without tunnel was significantly the lowest. Clear mulch without tunnel and the black and clear mulches with tunnels were the earliest maturing treatments.

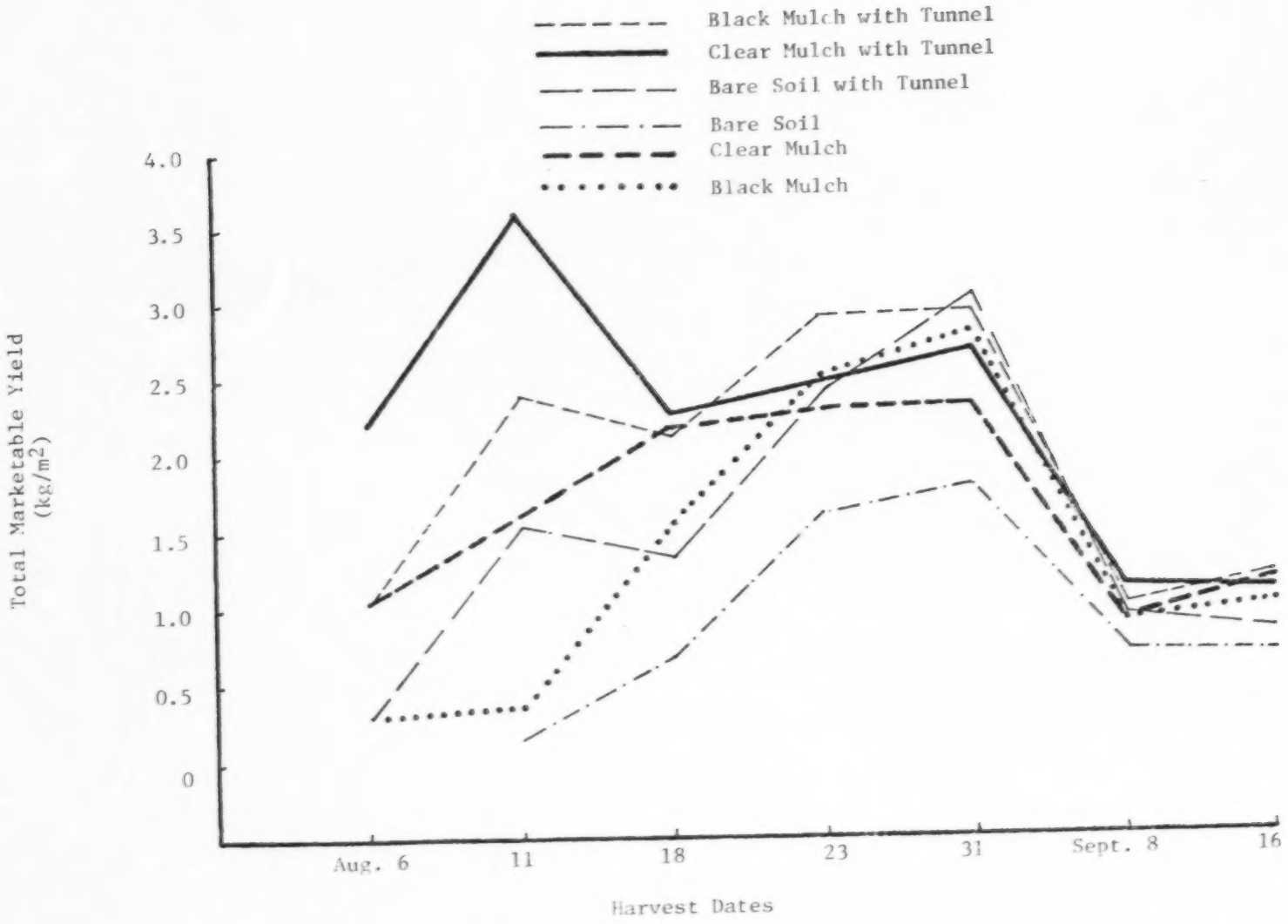
Treatment	Days to 1st Harvest	Yield at 1st Harvest kg.	Graded Yield (kg/m^2) #1 15 cm. +	#2 10-15 cm.	Culls	Total Yield kg/m^2	T/ha.
Clear Mulch & Tunnel	73	4.17 a[z]	2.74 a	2.42 a	.48 b	5.16 a	51.6
Black Mulch & Tunnel	73	2.08 b	2.44 ab	2.10 ab	.70 ab	4.54 a	45.4
Clear Mulch	73	2.35 b	1.84 bc	2.02 a	.91 a	3.87 b	38.7
Bare Soil & Tunnel	75	.71 b	1.91 c	1.60 bc	.52 b	3.53 b	35.3
Black Mulch	75	.71 b	1.76 bc	1.40 c	.58 b	3.40 b	34.0
Bare Soil	80	.68 b	.97 d	.89 d	.66 ab	1.86 c	18.6

Plot design - 3 replications
Row spacing - 1.8 m.
In-row spacing - 2 plants in 30 cm.
Row Length - 5 m. (3m. harvested)
Field seeded - May 26

[z]Means not followed by the same letter are significantly different by Duncans Multiple Range Test, 5% level (compare means within column)

PEAK HARVEST DATES OF SLICING CUCUMBERS
AS AFFECTED BY MULCHES AND COVERINGS

PEACE RIVER, 1982



WATERMELON POLYETHYLENE MULCH, TUNNEL AND HOTCAP TRIAL

PEACE RIVER, 1982

R. Trimmer, I. Gravell

The cultivars Yellow Baby and Stokes Sugar Hybrid, as transplants, were used to evaluated four plastic mulch treatments with plastic tunnels and hotcaps. In the Yellow Baby trial, the clear mulch with hotcap treatment yielded the best; while the clear mulch with tunnel treatment had the highest yield of Stokes Sugar Hybrid. Yellow Baby was the earliest in all treatments except clear mulch with hotcap.

Cultivar	Treatment	Days to 1st Harvest	Yield		Mean Diameter (cm)		Flesh Thickness
			kg/m^2	T/ha.	Polar	Equatorial	
Yellow Baby	Clear Mulch + Hotcap	96	4.22	42.2	13.9	14.3	12.9
Yellow Baby	Clear Mulch + Tunnel	82	3.85	38.5	15.1	15.1	12.9
Yellow Baby	Black Mulch + Hotcap	82	3.61	36.1	14.5	14.3	12.7
Yellow Baby	Black Mulch + Tunnel	82	3.35	33.5	14.9	14.8	13.5
Stokes Sugar Hybrid	Clear Mulch + Tunnel	92	3.00	30.0	16.1	14.2	13.4
Stokes Sugar Hybrid	Black Mulch + Hotcap	92	2.67	26.7	21.4	16.1	15.1
Stokes Sugar Hybrid	Black Mulch + Tunnel	96	2.61	26.1	19.2	15.8	14.8
Stokes Sugar Hybrid	Clear Mulch + Hotcap	96	2.30	23.0	19.2	15.2	14.8

Plot design - single row
Row spacing - 1.8 m.
In-row spacing - 60 cm.
Row length - 5 m. (3 m. harvested)
Field Transplanted - June 4

MUSKMELON POLYETHYLENE MULCH, TUNNEL AND HOTCAP TRIAL

PEACE RIVER, 1982

R. Trimmer, I. Gravell

Transplants of two cultivars, Northern Queen and Alaska, were planted to evaluate four treatments, including black and clear plastic mulch with plastic tunnels and hotcaps. Northern Queen yielded the best under the black mulch with tunnel treatment followed by clear mulch with tunnel. Alaska had the highest yield under the clear mulch with hotcap treatment followed by black mulch with hotcap.

Cultivar	Treatment	Days to 1st Harvest	Yield		Mean Diameter (cm)		Flesh Thickness (cm)
			kg/m^2	T/ha.	Polar	Equatorial	
Northern Queen	Black Mulch + Tunnel	92	3.68	36.8	16.7	12.1	1.5
Northern Queen	Clear Mulch + Tunnel	92	3.35	33.5	15.7	10.5	1.5
Northern Queen	Clear Mulch + Hotcap	92	2.90	29.0	16.6	10.8	1.5
Northern Queen	Black Mulch + Hotcap	92	2.74	27.4	18.0	12.1	1.7
Alaska	Clear Mulch + Hotcap	92	2.96	29.6	13.6	9.1	1.4
Alaska	Black Mulch + Hotcap	92	2.81	28.1	14.5	9.4	1.4
Alaska	Black Mulch + Tunnel	92	1.96	19.6	14.0	9.4	1.8
Alaska	Clear Mulch + Tunnel	92	1.50	15.0	12.6	8.6	1.4

Plot design - single row
Row spacing - 1.8 m.
In-row spacing - 60 cm.
Row length - 5 m. (3 m. harvested)
Field Transplanted - June 4

BROCCOLI CULTIVAR TRIAL

PEACE RIVER, 1982

R. Trimmer, I. Gravell

Four cultivars were evaluated in a trial including both direct seeding and transplant treatments. Except for the cultivar Premium Crop, the transplants out yielded the direct seeding. Under direct seeding, Premium Crop yielded the best, while in the transplant treatment Green Mountain had the highest yield. In both treatments, Premium Crop and Southern Comet were equal in earliness and were the earliest in the trial.

Treatment	Cultivar	Days to 1st Harvest	Days to 75% Harvest	Yield at 1st Harvest (kg)	Total Yield		Mean Primary Head Size		Lateral[x] Production	General Rating[y] (0-9) 9 Best
					kg/m^2	T/ha.	Diameter (cm)	Weight (km)		
Direct Seeded	Premium Crop	99	124	.30	.65	6.5	14.3	.29	Medium	7.0
	Southern Comet	99	124	.25	.56	5.6	15.7	.32	Light	6.5
	Gem	110	124	2.80	.52	5.2	15.5	.29	Light	6.0
	Green Mountain	110	124	.30	.27	2.7	13.8	.29	Medium	5.0
Trans-Plants	Green Mountain	58	83	.40	.68	6.8	13.2	.28	Medium	7.5
	Gem	58	63	1.05	.64	6.4	13.8	.27	Medium	6.5
	Southern Comet	51	70	1.50	.62	6.2	15.8	.26	Heavy	6.5
	Premium Crop	51	70	.15	.58	5.8	14.8	.26	Heavy	7.0

[x]Lateral production refers to the quantity of axil shoots produced after harvesting the primary head.

[y]General rating includes yield, appearance, evenness of maturity, flavour, earliness.

Plot design - single row
Row spacing - 90 cm.
In-row spacing - 45 cm.
Row length - 10 m (6 m. harvested)
Field Seeded - May 14
Field Transplanted - May 27

CABBAGE CULTIVAR TRIAL

PEACE RIVER, 1982

R. Trimmer, I Gravell

Twelve cultivars of cabbage were seeded in an evaluation trial including both direct seeded and transplant treatments. Poor germination eliminated the direct seeded treatment so only the transplant portion is reported. Safekeeper (a storage type) had the highest yield. Of the non-storage green type, Princess yielded the best, followed by Gladiator. Red Danish had the best yield of the red type. The earliest of the green cultivars were Golden Acre, Princess and Blue Heaven equally, while for the reds, Red Debut was earliest.

Cultivar	Days to 1st Harvest	Days to 75% Harvest	Yield at 1st Harvest	Total Yield kg/m^2	Total Yield T/ha.	Average Weight of Head	Mean Head Size Diameter (cm.) Polar	Mean Head Size Diameter (cm.) Equatorial	General Rating[y] (0-9) 9 best
Transplanted									
Safekeeper	128	128	55.80	10.33	103.3	4.29	22.2	20.4	7.0
Princess	59	71	6.60	4.92	49.2	2.04	14.6	18.2	8.5
Gladiator	64	81	3.20	4.79	47.9	1.99	15.2	17.2	8.0
Blue Heaven	59	71	2.20	4.11	41.1	1.71	14.8	17.1	8.0
Golden Acre	59	64	5.55	3.81	38.1	1.58	14.8	17.4	8.0
Stonehead	71	84	5.95	3.29	32.9	1.37	15.1	16.3	7.0
Emerald Acre	48	52	4.60	1.86	18.6	0.77	12.4	13.0	7.0
Red Danish	84	128	2.80	7.31	73.1	3.04	17.3	21.6	8.0
Storage Red	128	128	38.40	7.11	71.1	2.95	22.1	17.8	7.0
Mammoth Red Rock	84	114	6.70	5.91	59.1	2.45	14.7	20.5	7.5
Ruby Ball	81	94	15.80	4.48	44.8	1.86	15.4	15.4	7.0
Red Debut	71	94	5.95	4.08	40.8	1.70	14.8	15.3	7.0

[y]General rating includes yield, appearance, eveness of maturity, flavour, earliness

Plot design - single row
Row spacing - 90 cm.
In-row spacing - 45 cm.
Row length - 10 m. (6 m. harvested)
Field transplanted - May 26

CAULIFLOWER CULTIVAR TRIAL

PEACE RIVER, 1982

R. Trimmer, I. Gravell

Seven cultivars of cauliflower were evaluated in a trial, including both direct seeding and using transplants. The direct seeding treatment was discarded due to extremely poor germination; so only the transplant treatment is reported. The cultivar Dominant had the best yield followed by Delira. White Countessa was cancelled due to early bolting and generally poor quality. Stove Pipe exhibited similar poor quality characteristics. Extra Early Snowball and Snow Crown were the earliest.

Cultivar	Days to 1st Harvest	Days to 75% Harvest	Yield		Mean Curd Size			Effectiveness of Wrapper Leaves	General Rating[x] 0-9 9 best
					Diameter (cm)		Weight (kg)		
			kg/m^2	T/ha.	Polar	Equatorial			
Transplants									
Dominant	77	111	3.77	37.7	9.9	17.4	1.57	Good	8.5
Delira	72	111	2.36	23.6	10.1	18.0	0.98	Very Good	8.0
White Express	63	111	1.46	14.6	7.8	13.7	0.61	Very Good	7.0
Snow Crown	51	70	1.31	13.1	8.0	15.4	0.55	Poor	7.0
Extra Early Snowball	51	64	1.19	11.9	8.9	15.8	0.49	Medium	6.5
Stovepipe	51	65	0.91	9.1	9.2	14.4	0.35	Poor	4.0
White Countessa	Cancelled								

[x]General rating includes total yield, appearance, eveness of maturity, flavour, earliness.

Plot design - single row
Row spacing - 90 cm.
In-row spacing - 45 cm.
Row length - 10 m. (6 m. harvested)
Field transplanted - May 27

ADVANCED PICKLING CUCUMBER CULTIVAR TRIAL

PEACE RIVER, 1982

R. Trimmer, I. Gravell

Six pickling cucumber cultivars were evaluated. There was no significant differences in yields by data analysis. However, Greenpak yielded the best, followed by Morden Early and Earlipik. Morden Early was the earliest maturing cultivar. Greenpak had a significantly better L/D ratio, indicating a longer, thinner fruit which is preferred. Early Morden was the poorest indicating a short, thick fruit.

Cultivar	Days to 1st Harvest	Yield at 1st Harvest kg.	Graded Yield (kg/m^2) Based on Diameter (cm.) m#1	m#2	m#3	m#4	m#5	Total Marketable Yield kg/m^2	T/ha.	L/D[x] Ratio	General[w] Rating (0-9) 9 Best
Greenpak	66	.11 a[z]	.33 a	.56 a	.73 a	.15 a	.18 a	1.97 a	19.7	3.24 a	7
Morden Early	64	.12 a	.24 a	.38 a	.60 a	.15 a	.33 a	1.72 a	17.2	2.04 d	7
Earlipik	68	.17 a	.22 a	.41 a	.74 a	.10 a	.18 a	1.66 a	16.6	2.88 b	7
Pickmore	68	.13 a	.24 a	.38 a	.59 a	.11 a	.13 a	1.46 a	14.6	2.93 b	6
Compass	66	.15 a	.17 a	.29 a	.60 a	.10 a	.13 a	1.30 a	13.0	2.68 c	6
Saladin	72	.37 a	.20 a	.28 a	.45 a	.14 a	.09 a	1.18 a	11.8	2.83 b	6

Plot design - 3 replications
Row spacing - 1.8 m.
In-row Spacing - 15 cm.
Row length - 5m. (3m. harvested)
Field Seeded - May 21

[w]General Rating includes total yield, earliness, flavour and appearance.

[x]L/D ratio = $\frac{\text{Length of fruit (cm.)}}{\text{Diameter of fruit (cm.)}}$ - Large numbers imply low narrow fruit. Small numbers imply short, thick fruit.

[z]Means not followed by the same letter are significantly different by Duncans Multiple Range Test, 5% level (compare means within column).

ADVANCED SLICING CUCUMBER CULTIVAR TRIAL

PEACE RIVER, 1982

R. Trimmer, I. Gravell

Six slicing cucumber cultivars were field seeded for comparison. A & C Improved was the highest yielder, followed by Victory, although there were no significant differences in yield by data analysis. A & C Improved and Victory were also the best from the standpoint of early maturity.

Cultivar	Days to 1st Harvest	Yield at 1st Harvest kg.	Graded Yield (kg/m^2) 15 cm +	10-15 cm.	Culls	Total Yield kg/m^2	T/Ha.	L/D[x] Ratio	General[w] Rating (0-9) 9 Best
A & C Improved	82	2.23 a[z]	1.45 a	1.45 a	.34 a	2.87 a	28.7	4.07 a	8
Victory	82	3.08 a	1.06 ab	1.12 a	.35 a	2.18 a	21.9	3.67 a	7.5
Roadside Fancy	89	4.03 a	1.03 ab	1.10 a	.38 a	2.13 a	21.3	4.77 a	7
Slice Master	89	3.56 a	1.03 ab	.99 a	.48 a	2.03 a	20.3	4.09 a	7
Dasher	85	1.71 a	.85 bc	.93 a	.39 a	1.78 a	17.8	4.33 a	7
Hy Slicer	85	1.23 a	.50 c	.82 a	.40 a	1.32 a	13.2	3.38 a	6

Plot design - 3 replications
Row Spacing - 1.8 m.
In-row Spacing - 15 cm.
Row Length - 5m. (3m. harvested)
Field seeded - May 24

[w]General Rating includes total yield, earliness, flavour and appearance

[x]L/D Ratio = $\frac{\text{length of fruit (cm.)}}{\text{diameter of fruit (cm.)}}$ - large numbers imply long narrow fruit. Small numbers imply short, thick fruit.

[z]Means not followed by the same letter are significantly different by Duncans Multiple Range Test, 5% level (compare means within column).

LETTUCE CULTIVAR TRIAL

PEACE RIVER, 1982

R. Trimmer, I. Gravell

Two cultivars of red leafed types and three head types were evaluated. Of the leaf type, Deep Red had the best yield. Ithica M.I. was the highest yielder of the head types and also had the largest, most solid heads.

Cultivar	Lettuce Type	Days to 1st Harvest	Days to 75% Harvest	Yield		General Rating[x] (0-9)
				kg/m^2	T/ha.	9 best
Deep Red	Leaf	81	81	2.31	23.1	8
Ruby	Leaf	81	81	2.15	21.5	6
Ithica M.I.	Head	95	95	3.59	35.9	9
Minilake M.I.	Head	95	95	2.67	26.7	8
Montello M.I.	Head	95	95	2.30	23.0	7

[x]General rating includes yield, flavour and appearance.

Plot design - single row
Row spacing - 90 cm.
In-row spacing - 45 cm.
Field seeded - May 18
Row Length - 10 m. (3 m. harvested)

PUMPKIN CULTIVAR TRIAL

PEACE RIVER, 1982

R. Trimmer, I. Gravell

Four cultivars of pumpkin were field seeded and evaluated. Spirit had the best yield, however, there were no significant yield differences by data analysis in any of the cultivars. Pankow Field had the second highest yield and greatest flesh thickness.

Cultivar	Weight of Marketable Mature Fruit kg.[z]	Total Marketable Yield		Diameter (cm)		Flesh Thickness (cm.)	External Color	Shape	General Rating[y] (0-9) 9 best
		kg/m^2	T/ha.	Polar	Equatorial				
Spirit	37.00 a	6.85 a	68.5	23.7	24.6	4.49	Dk. Orange	Oblong	6.5
Pankow Field	34.53 a	6.39 a	63.9	31.0	34.9	6.45	Med. Orange	Flat	6.0
Jackpot	34.20 a	6.33 a	63.3	23.0	21.8	5.12	Dk. Orange	Oblong	5.5
Small Sugar	24.76 a	4.59 a	45.9	14.7	19.5	3.81	Dk. Orange	Oblong	5.5

[y]General rating includes marketable mature yield, earliness, mature color.

[z]Means not followed by the same letter are significantly different by Duncans Multiple Range Test, 5% level (compare means within column).

Plot design - 3 replications
Row spacing - 1.8 m.
In row spacing - 100 cm.
Row length - 5 m. (3 m. harvested)
Field seeded - May 18
Harvested - September 25

TOMATO CULTIVAR TRIAL

PEACE RIVER, 1982

R. Trimmer, I. Gravell

Six tomato cultivars were evaluated in a single row trial. Of the two small fruited cultivars, Stokes Alaska yielded better than Rocket. Of the larger fruited cultivar, Peto Early had the best yield, followed by Earlibright. Cold Set and Rocket matured the earliest, while Peto Early was the latest.

Cultivar	First Harvest Date	First Harvest Days from Transplanting	Fruit Weight (kg)	Yield kg/m^2	Yield T/ha.	Plant Type	Fruit Shape	Severity of Cracking 0-9[x]	Firmness 0-9[x]	Protective Ability of Skin 0-9[x]	General Rating[x] (0-9) 9 Best
Rocket	Aug.5	72	.08	4.78	47.8	Compact	Flat	3	4	2	6
Cold Set	Aug.5	72	.11	4.74	47.4	Compact	Oblong	4	5	4	6
Earlibright	Aug.6	73	.11	5.83	58.3	Compact	Round	5	6	3	7
Early Bird	Aug.6	73	.15	5.30	53.0	Compact	Round	6	6	6	8
Stokes Alaska	Aug.10	77	.05	5.28	52.8	Sprawling	Flat Round	6	7	6	7
Peto Early	Aug.23	90	.15	6.44	64.4	Compact	Round	3	4	2	6

[x]Cracking - 0 severe cracking; 9 no cracking
Firmness - 0 soft; 9 very firm
Protective ability of Skin - 0 weak; 9 strong
General rating includes earliness, yield, flavour, firmness, uniformity, absence of cracks, color

Plot design - single row
Row spacing - 1.8 m.
In-row spacing - 90 cm.
Row length - 10 m. (6 m. harvested)
Field transplanted - May 26

POOR

QUALITY

ORIGINAL